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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,857	04/27/2001	Tae-kyoung Kang	1568.1014	8680
21171	7590	12/11/2003	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			LEURIG, SHARLENE L	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

9m

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/842,857	KANG, TAE-KYOUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sharlene Leurig	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-28 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 3 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☒ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
     a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Response to Amendment***

2. The amendment filed on September 8, 2003 has been acknowledged and entered by the Examiner. Claims 1 and 5 have been amended.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4, 5, 6, 7 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Betsui et al. (5,967,872) (of record) in view of Nanto et al. (5,952,782) (of record).

Regarding claims 1 and 5, Betsui discloses a base panel for a plasma display device, comprising a panel member (Figure 3, element 21), address electrodes (A) formed on the panel member in a predetermined pattern, a partition structure comprising unit partitions (29), discontinuously formed on the panel member parallel to each other, to partition a discharge space. The unit partitions can be considered

discontinuous because there are gaps separating them all along their lengths. Each of the unit partitions, defined by the structure formed by two adjacent barrier walls, has auxiliary partitions extending from both ends, where the auxiliary partitions are defined as the narrow portions of the barrier walls (29) where the adjacent barrier walls come closer together and the unit partition main part is defined as the wide portion of the barrier walls (29) where the adjacent barrier walls move farther apart to form the discharge spaces.

Regarding claim 5, the unit partitions are formed parallel to address electrodes (Figure 3, elements A and 29). Red, green and blue phosphors are coated in the partitioned discharge space (28R, 28G and 28B). Betsui discloses a second panel (11) coupled to the first panel to form a discharge space between them, the second panel being transparent. Sustaining electrodes (X and Y) are formed on an inner surface of the second panel and comprise pairs of first and second electrodes (41, 42) disposed at a predetermined angle with respect to the address electrodes. A second dielectric layer (17) is formed on the second panel, covering the sustaining electrodes.

Regarding claims 4 and 9, the auxiliary partitions of one of the unit partitions do not contact those of an adjacent one.

Betsui lacks a dielectric layer formed over the address electrodes on the back panel.

However, it is well known in the art to provide a dielectric layer over electrodes in a plasma display device.

Nanto teaches a dielectric layer formed over the address electrodes (Figure 2, element 24).

Therefore regarding claims 2 and 5, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Betsui's plasma display with a dielectric layer formed over the address electrodes, since it is well known in the art to provide one.

Betsui lacks a black matrix layer formed between the sustaining electrodes.

It is well known in the art to provide a black matrix on the front panel of a plasma display to enhance the definition between the pixels.

Regarding claim 6, Nanto teaches the formation of a black matrix layer (Figure 2, element 45) in between the pair of first and second electrodes on the front panel of a plasma display in order to increase the contrast of the display (column 7, lines 5-6).

Regarding claim 7, Nanto teaches the formation of a black matrix layer running transversely across the display, so if it were combined with Betsui's display the black matrix running transversely would intersect with the disconnected regions of the unit partitions, which run longitudinally, and the black matrix would therefore be formed over areas corresponding to the disconnected portions of the unit partitions.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Betsui's plasma display with a black matrix formed in between the front electrode pairs in order to improve the contrast of the display.

***Allowable Subject Matter***

5. Claims 3 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 3 and 8, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claims 3 and 8, and specifically comprising the limitation of the unit partitions being disposed in a delta arrangement, as indicated in the prior office action.

6. Claims 10-28 are allowed. The following is an examiner's statement of reasons for allowance:

The examiner notes that the Prior Art of Record, Betsui et al. (5,967,872) discloses a plasma display having a base panel with a partition structure of unit partitions formed on a dielectric layer covering electrodes, and wherein adjacent pairs of the unit partitions define a unit discharge space extending across a corresponding electrode.

Regarding claims 10-28, the references of the Prior Art of Record fail to teach or suggest the combination of the limitations as set forth in claims 10 and 21, and specifically comprising the limitation of the unit partitions being formed in multiple rows across the base panel, adjacent unit partitions in a common row defining a unit discharge space across a corresponding electrode, where adjacent unit partitions do not contact each other.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

7. Applicant's arguments, see Remarks, filed September 8, 2003, with respect to the rejection of claims 1, 2, 4, 5 and 9 under 35 U.S.C. § 102(e) as being anticipated by Yoshida (6,489,722), the rejection of claims 10, 14, 15, 19-21 and 26 under 35 U.S.C. § 102(e) as being anticipated by Sano (US 2002/0021090), and the rejection of claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Yoshida (6,489,722) in view of Nanto (5,952,782) have been fully considered and are persuasive. The translation of the Korean priority documents provided by the applicant has successfully overcome the references of Yoshida and Sano. The rejection of claims 1, 2, 4, 5, 6, 9, 10, 14, 15, 19-21 and 26 under these references has been withdrawn.

8. Applicant's arguments regarding the rejection of claims 1, 2, 4, 5, 6, 7 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Betsui (5,967,872) in view of Nanto (5,952,782), filed September 8, 2003 have been fully considered but they are not persuasive. The applicant has argued that the claims are allowable over the references because neither Betsui nor Nanto teaches or suggests "a base panel for use in a plasma display device, comprising ... a partition structure comprising unit partitions, wherein the unit partitions are discontinuously formed on said first panel to partition the

discharge space, the unit partitions being parallel to the address electrodes and each of the unit partitions having auxiliary partitions extending from both ends of each unit partition," as claimed in claims 1 and 5.

However, the Examiner maintains that the combination of Betsui and Nanto does teach each and every limitation of claims 1 and 5, since Betsui discloses unit partitions (Figure 3, element 29) parallel to address electrodes (A). The unit partitions are interpreted as being discontinuous because they do not contact each other. The unit partitions (29) partition the discharge space. Furthermore, the unit partitions have auxiliary partitions arranged at a different angle from the unit partition section, which is arranged parallel to the address electrodes, these auxiliary partitions having bent portions leading into auxiliary partition sections that are also parallel to the address electrodes but closer to the address electrode than the part of the unit partition partitioning the discharge space.

The combination of Betsui and Nanto does teach each and every limitation of claims 1 and 5 and dependent claims 2, 4, 6, 7 and 9, and therefore the rejection of these claims is maintained.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. If the applicant wishes to review a former patent on a base panel for a plasma display panel having unit partitions with auxiliary partitions extending from both ends of each unit partition, USPN 6,411,043 to Jeong et al. is cited of interest.



10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (703)305-4745. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Sharlene Leurig

  
ASHOK PATEL  
PRIMARY EXAMINER